



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,144	11/17/2000	Yosuke Hoi	0505-0714P	5531

7590 04/01/2004

Birch Stewart Kolasch & Birch LLP
P O Box 747
Falls Church, VA 22040-0747

EXAMINER

BURCH, MELODY M

ART UNIT	PAPER NUMBER
----------	--------------

3683

DATE MAILED: 04/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/714,144

Applicant(s)

HOI ET AL.

Examiner

Melody M. Burch

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,9,11,12 and 14-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 11 is/are allowed.
- 6) ☒ Claim(s) 1,3-6,12,14-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5, 12, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-988523 (JP '523) in view of US Patent 4086981 to Mitsui.

Re: claims 1 and 12. JP '538 shows in figure 3 a lubricating apparatus capable of being used for a horizontally disposed dry sump engine, comprising: a cylindrical relief valve 78, the cylindrical relief valve having a longitudinal axis disposed in a horizontal direction, the longitudinal axis being disposed in parallel to a longitudinal axis of a main gallery shown in the area of the lead line of element number 50 and a horizontal longitudinal axis of a crank shaft 4 of the engine. It is noted that the crank shaft 4 is shown in figure 1 to be disposed in parallel to the shaft 14 which is shown in figure 3 to be disposed in parallel to the relief valve 78 and the main gallery shown in the area of element number 50.

JP '538 shows in figure 3 the relief valve having a body with a longer longitudinal part parallel to the main gallery and an end of the body being in communication with the main gallery via the passage shown in the area of the lead line of number 72a, but does not show or disclose the limitation of the relief valve having an L-shaped body with a

Art Unit: 3683

longer longitudinal part and a shorter transverse part connected at one end to an in communication with the main gallery.

Mitsui teaches in figure 1 the use of a valve having an L-shaped body 4 including a longer longitudinal part shown in the area of elements 16,18,4b and a shorter transverse part shown in the area of elements 2,4a.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the valve body shape of the relief valve of JP '538 to have been an L-shaped body including a shorter transverse part, as taught by Mitsui, in order to provide a means of helping to guide fluid directly into the relief valve and prevent excessive leakage of the lubricating fluid via the slot shown in the area of the lead line of number 80 between the main gallery and the relief valve body.

Re: claims 3, 5, and 14. JP '538, as modified as set forth in claim 1, teaches in figure 3 of JP '538 the use of a discharge port shown in the area to the right of the lead line of number 78.

Re: claims 4, 15, and 16. JP '538, as modified as set forth in claim 1, teaches in figure 3 of JP '538 the use of a stopper or shoulder shown to the left of the lead line of number 80 and to the right of the discharge port for restricting movement of the cylindrical valve body shown in the area of the lead line of number 78 in the longer longitudinal part, a spring shown within the cylindrical valve body for biasing the cylindrical valve body toward the stopper, a spring stop shown to the right of the lead line of number S2 for pressing the spring, and a mounting portion or threads integrally formed with the L-shaped body shown in the area of the lead line of number 2 shown in

figure 1 of Mitsui for mounting the relief valve, as modified to a bottom wall portion of the main gallery via passage 72a.

3. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-988523 (JP '523) in view of US Patent 4086981 to Mitsui as applied to claims 1 and 12 and further in view of US Patent 5339446 to Regueiro.

JP '538, as modified, shows the use of an oil tank 6a, but does not show the limitation of a strainer, the strainer being provided in the oil tank.

Regueiro teaches in figure 1 the use of a lubricating apparatus comprising an oil tank 14 and a strainer 15 for straining oil recovered in the oil tank, the strainer being provided in the oil tank.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the oil tank of JP '538, as modified, to have included a strainer being provided in the oil tank, as taught by Regueiro, in order to provide a means of separating debris from the oil of the lubrication apparatus.

Allowable Subject Matter

4. Claims 9 and 11 are allowed. JP-988523 (JP '523) alone or as modified fails to teach or suggest the limitation of a relief valve provided in the oil tank.

Response to Arguments

5. Applicant's arguments filed 3/9/04 been fully considered but they are not persuasive.

Applicant argues that the valve of Mitsui is not a relief valve. In response to applicant's arguments against the references individually, one cannot show

Art Unit: 3683

nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Examiner emphasizes that it is the combination of JP'538 in view of Mitsui that teaches the claimed invention. JP'538 already discloses a relief valve. The Mitsui reference is used simply for the teaching of a valve body being L-shaped. Examiner notes, however, that the valve of Mitsui may be considered as a relief valve since it serves to relieve or drain oil from an oil pan as disclosed in col. 2 lines 1-4.

Applicant also argues that Mitsui does not show any part of the valve of Mitsui in communication with a main gallery. Examiner reiterates that it is the combination of JP'538 in view of Mitsui that teaches the claimed invention. JP'538 shows in figure 3 a relief valve 78 in communication with a main gallery shown in the area of element number 50 by way of passage 72a. JP'538 clearly shows in figure 3 that the passage surrounding element 78 and passage 72a form an L-shape. Examiner maintains that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the body of the relief valve of JP'538 to have been L-shaped, as taught by Mitsui, in order to provide a valve that fits within the two passages and catches more of the fluid directly from the main gallery, avoiding some fluid leakage they may occur in the area of the lead line of number 80.

Examiner notes that the discussion of the operation of the device of JP'538 is more specific than the claim language and maintains that the main gallery in the area of element number 50 of the JP'538 reference may be considered a main gallery to the

same extent as Applicant considers passageway 26 a main gallery. Both the main gallery of JP'538 and the main gallery of the instant application include passageways through which oil flows. For the reasons set forth above, the rejections have been maintained.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

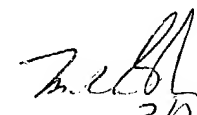
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mmb 3/25/04
mmb
March 25, 2004


3/30/2004
MATTHEW C. GRAHAM
PRIMARY EXAMINER
GROUP 310